



ELSEVIER

Earth and Planetary Science Letters 179 (2000) 607–609

EPSL

www.elsevier.com/locate/epsl

Contents Volume 179

Express Letter

High-Mg Tertiary basalts in Southern Sardinia (Italy)

M. Mattioli, F. Guerrera, M. Tramontana, G. Raffaelli and M. D'Atri 1

Regular Letters

Variable Ti-content and grain size of titanomagnetite as a function of cooling rate in very young MORB

W. Zhou, R. Van der Voo, D.R. Peacor and Y. Zhang 9

Niobium-enriched basalts from the Wabigoon subprovince, Canada: evidence for adakitic metasomatism above an Archean subduction zone

D.A. Wyman, J.A. Ayer and J.R. Devaney 21

A long in situ section of the lower ocean crust: results of ODP Leg 176 drilling at the Southwest Indian Ridge

H.J.B. Dick, J.H. Natland, J.C. Alt, W. Bach, D. Bideau, J.S. Gee, S. Haggas, J.G.H. Hertogen, G. Hirth, P.M. Holm, B. Ildefonse, G.J. Iturrino, B.E. John, D.S. Kelley, E. Kikawa, A. Kingdon, P.J. LeRoux, J. Maeda, P.S. Meyer, D.J. Miller, H.R. Naslund, Y.-L. Niu, P.T. Robinson, J. Snow, R.A. Stephen, P.W. Trimby, H.-U. Worm and A. Yoshinobu 31

The influence of conduit geometry on the dynamics of caldera-forming eruptions

F. Legros, K. Kelfoun and J. Marti 53

On the fate of mantle plumes at density interfaces

I. Kumagai and K. Kurita 63

Peregrinations of the Greenland Ice Sheet divide in the last glacial cycle: implications for central Greenland ice cores

S.J. Marshall and K.M. Cuffey 73

The oldest ice on Earth in Beacon Valley, Antarctica: new evidence from surface exposure dating

J.M. Schäfer, H. Baur, G.H. Denton, S. Ivy-Ochs, D.R. Marchant, C. Schlüchter and R. Wieler 91

⁴⁰Ar/³⁹Ar dating of the pre-evaporitic Messinian marine sequences of the Melilla basin (Morocco): a proposal for some biosedimentary events as isochrons around the Alboran Sea

S. Roger, P. Münch, J.J. Cornée, J.P. Saint Martin, G. Féraud, S. Pestrea, G. Conesa and A. Ben Moussa 101

The Os and Sr isotopic record of Himalayan paleorivers: Himalayan tectonics and influence on ocean chemistry

J.T. Chesley, J. Quade and J. Ruiz 115

Sources and transport of anthropogenic radionuclides in the Ob River system, Siberia

J.K. Cochran, S.B. Moran, N.S. Fisher, T.M. Beasley and J.M. Kelley 125

Osmium isotopes in hydrothermal fluids from the Juan de Fuca Ridge

M. Sharma, G.J. Wasserburg, A.W. Hofmann and D.A. Butterfield 139

Fluid, methane, and energy flux in an active margin gas hydrate province, offshore Costa Rica

C. Ruppel and M. Kinoshita 153

Ecophysiological perspective of phytogenic organic and inorganic components in Greek lignites: a quantitative reinterpretation

C. Mulder, V. Sakorafa, F. Burrigato and H. Visscher 167

Crustal structure across the San Andreas Fault, southern California from teleseismic converted waves

L. Zhu 183

Geomagnetic paleointensities at Hawaii between 3.9 and 2.1 Ma: preliminary results

C. Laj, N. Szeremeta, C. Kissel and H. Guillou 191

Secular variation in Permian red beds from Dôme de Barrot, SE France

P.P. Kruijer, M.J. Dekkers and C.G. Langereis 205

Express Letter

Evidence for crystals from the lower mantle: baddeleyite megacrysts of the Mbuji Mayi kimberlite

L. Kerschhofer, U. Schärer and A. Deutsch 219

Regular Letters

Ice-sheet radar layering and the development of preferred crystal orientation fabrics between Lake Vostok and Ridge B, central East Antarctica	
M.J. Siegert and R. Kwok	227
First direct dating of Late Pleistocene ice-wedges by AMS	
Y.K. Vasil'chuk, J. van der Plicht, H. Jungner, E. Sonninen and A.C. Vasil'chuk	237
Climate change and mass movements in the NW Argentine Andes	
M.H. Trauth, R.A. Alonso, K.R. Haselton, R.L. Hermanns and M.R. Strecker	243
Coccolith evidence for instabilities in surface circulation south of Iceland during Holocene times	
J. Giraudeau, M. Cremer, S. Manthé, L. Labeyrie and G. Bond	257
Strontium isotope profile of the early Toarcian (Jurassic) oceanic anoxic event, the duration of ammonite biozones, and belemnite palaeotemperatures	
J.M. McArthur, D.T. Donovan, M.F. Thirlwall, B.W. Fouke and D. Matthey	269
Multi-proxy constraints on the climatic significance of trace element records from a New Zealand speleothem	
J.C. Hellstrom and M.T. McCulloch	287
The estuarine chemistry of rare earth elements: comparison of the Amazon, Fly, Sepik and the Gulf of Papua systems	
E. Sholkovitz and R. Szymczak	299
Magnetic polarity stratigraphy and paleolatitude of the Triassic–Jurassic Blomidon Formation in the Fundy basin (Canada): implications for early Mesozoic tropical climate gradients	
D.V. Kent and P.E. Olsen	311
Late Silurian paleomagnetic pole from the Holy Cross Mountains: constraints for the post-Caledonian tectonic activity of the Trans-European Suture Zone	
J. Nawrocki	325
Tectonic controls on magmatism associated with continental break-up: an example from the Paraná–Etendeka Province	
C.J. Hawkesworth, K. Gallagher, L. Kirstein, M.S.M. Mantovani, D.W. Peate and S.P. Turner	335
'Overtuned' marble layers: evidence for upward extrusion of the Backbone Range of Taiwan	
T.-F. Yui and H.-T. Chu	351
Finite amplitude folding: transition from exponential to layer length controlled growth	
S.M. Schmalholz and Y.Y. Podladchikov	363
Non-random spectral components in the seismicity of NE Italy	
C. Braitenberg	379
Seismic attenuation in the Costa Rica margin wedge: amplitude modeling of ocean bottom hydrophone data	
G.L. Christeson, K.D. McIntosh and T.H. Shipley	391
Heat flow in the continental area of China: a new data set	
S. Hu, L. He and J. Wang	407

Discussion

Discussion of: "Pulsed inflation of pahoehoe lava flows: implications for flood basalt emplacement", by S.W. Anderson, E.R. Stofan, E.R. Smrekar, J.E. Guest and B. Wood [Earth Planet. Sci. Lett. 168 (1999) 7–18]	
S. Self, L.P. Keszthelyi and T. Thordarson	421
Reply to: Self et al. discussion of "Pulsed inflation of pahoehoe lava flows: implications for flood basalt emplacement"	
S.W. Anderson, E.R. Stofan, S.E. Smrekar, J.E. Guest and B. Wood	425

Express Letters

Quantifying passive margin denudation and landscape development using a combined fission-track thermochronology and cosmogenic isotope analysis approach	
H.A.P. Cockburn, R.W. Brown, M.A. Summerfield and M.A. Seidl	429
Timing, quantification and tectonic modelling of Pliocene–Quaternary movements in the NW Himalaya: evidence from fission track dating	
A.K. Jain, D. Kumar, S. Singh, A. Kumar and N. Lal	437
Resolving crystallisation ages of Archean mafic–ultramafic rocks using the Re–Os isotope system	
K.W. Burton, F. Capmas, J.-L. Birck, C.J. Allègre and A.S. Cohen	453
Petrogenetic significance of ferro-enstatite orthopyroxene in basaltic dikes from the Tapi rift, Deccan flood basalt province, India	
D. Chandrasekharam, O. Vaselli, H.C. Sheth and S. Keshav	469
Metal–silicate interaction in quenched shock-induced melt of the Tenham L6-chondrite	
H. Leroux, J.-C. Doukhan and F. Guyot	477

The nature of maskelynite in shocked meteorites: not diaplectic glass but a glass quenched from shock-induced dense melt at high pressures M. Chen and A. El Goresy	489
Evidence for Early Cretaceous oceanic crust trapped in the Philippine Sea Plate A. Deschamps, P. Monié, S. Lallemand, S.-K. Hsu and K.Y. Yeh	503
Evidence for a 20° tilting of the Earth's rotation axis 110 million years ago M. Prévot, E. Mattern, P. Camps and M. Daignières	517
Vertical and lateral splitting of a hydrothermal plume at Steinahóll, Reykjanes Ridge, Iceland G.G.J. Ernst, R.R. Cave, C.R. German, M.R. Palmer and R.S.J. Sparks	529
The Mid-Pleistocene climate transition as documented in the deep South Atlantic Ocean: initiation, interim state and terminal event F. Schmieder, T. von Döbenek and U. Bleil	539
Seismic anisotropy of South African upper mantle xenoliths C. Long and N.I. Christensen	551
Crustal structure transition from oceanic arc to continental arc, eastern Aleutian Islands and Alaska Peninsula M.M. Flöner and S.L. Klemperer	567
²²⁶ Ra– ²³⁰ Th evidence for multiple dehydration events, rapid melt ascent and the time scales of differentiation beneath the Tonga–Kermadec island arc S. Turner, B. Bourdon, C. Hawkesworth and P. Evans	581
Discussion	
Comment on "Crustal structure based on gravity–magnetic modelling constrained from seismic studies under Lambert Rift, Antarctica and Godavari and Mahanadi rifts, India and their interrelationship" by D.C. Mishra et al. S.K. Acharyya	595
Reply to the comments by S.K. Acharyya on "Crustal structure based on gravity–magnetic modelling constrained from seismic studies under Lambert Rift, Antarctica and Godavari and Mahanadi rifts, India and their interrelationship" D.C. Mishra, D.V. Chandrasekhar, D.C. Ventata Raju and V. Vijaya Kumar	599
<i>Author Index Volume 179</i>	601

NT

DL

9

0

II

